

Utah Vital Statistics: Quarterly Report

Fourth Quarter 2002



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Mission Statement

The Office of Vital Records and Statistics administers the statewide system of Vital Records and Statistics by documenting and certifying the facts of births, deaths, and family formation for the legal purposes of the citizens of Utah, participates in the National Vital Statistics System, and responds to the needs of health programs, health care providers, businesses, researchers, educational institutions and the Utah public for data and statistical information.

Source of Data

Vital statistics birth and death certificates are required by law to be filed with the state Office of Vital Records and Statistics and are the primary source of data presented in this report. These birth and death data are provisional until published in the annual report, Utah's Vital Statistics: Births and Deaths (Year).

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**Table 1. Births, deaths, infant deaths, stillbirths, and population by health district:
Utah, fourth quarter 2002**

| Health district County | Population Number | Births | | Deaths | | Infant deaths | | Stillbirths | |
|---------------------------|----------------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|
| | | 4th Qtr Number | YTD Number | 4th Qtr Number | YTD Number | 4th Qtr Number | YTD Number | 4th Qtr Number | YTD Number |
| Total | 2,338,762 | 11,720 | 48,940 | 3,245 | 12,885 | 53 | 226 | 58 | 241 |
| Bear River | 141,322 | 732 | 3,105 | 193 | 732 | 2 | 13 | 5 | 14 |
| Box Elder | 43,812 | 198 | 802 | 80 | 299 | 0 | 1 | 2 | 5 |
| Cache | 95,460 | 523 | 2,280 | 110 | 417 | 2 | 12 | 3 | 9 |
| Rich | 2,050 | 11 | 23 | 3 | 16 | 0 | 0 | 0 | 0 |
| Central Utah | 67,673 | 265 | 1,107 | 125 | 507 | 0 | 4 | 1 | 6 |
| Juab | 8,643 | 40 | 170 | 16 | 50 | 0 | 0 | 1 | 2 |
| Millard | 12,335 | 37 | 184 | 32 | 117 | 0 | 1 | 0 | 1 |
| Piute | 1,409 | 4 | 16 | 8 | 20 | 0 | 0 | 0 | 0 |
| Sanpete | 23,550 | 95 | 368 | 40 | 172 | 0 | 2 | 0 | 2 |
| Sevier | 19,232 | 83 | 323 | 25 | 136 | 0 | 0 | 0 | 1 |
| Wayne | 2,504 | 6 | 46 | 4 | 12 | 0 | 1 | 0 | 0 |
| Davis | 250,265 | 1,167 | 5,100 | 303 | 1,200 | 1 | 13 | 3 | 20 |
| Salt Lake | 927,564 | 4,477 | 18,527 | 1,275 | 5,175 | 28 | 101 | 30 | 102 |
| Southeastern | 53,082 | 180 | 730 | 89 | 374 | 0 | 2 | 0 | 6 |
| Carbon | 19,858 | 82 | 315 | 47 | 184 | 0 | 1 | 0 | 2 |
| Emery | 10,540 | 37 | 158 | 18 | 77 | 0 | 0 | 0 | 0 |
| Grand | 8,468 | 17 | 94 | 16 | 65 | 0 | 1 | 0 | 0 |
| San Juan | 14,216 | 44 | 163 | 8 | 48 | 0 | 0 | 0 | 4 |
| Southwest | 152,960 | 710 | 2,965 | 281 | 1,073 | 2 | 11 | 2 | 8 |
| Beaver | 6,285 | 28 | 116 | 16 | 57 | 0 | 1 | 0 | 0 |
| Garfield | 4,599 | 13 | 67 | 10 | 45 | 0 | 0 | 0 | 0 |
| Iron | 35,507 | 173 | 736 | 56 | 194 | 0 | 3 | 0 | 2 |
| Kane | 5,958 | 19 | 84 | 14 | 51 | 0 | 0 | 0 | 1 |
| Washington | 100,611 | 477 | 1,962 | 185 | 726 | 2 | 7 | 2 | 5 |
| Summit | 32,236 | 127 | 467 | 18 | 88 | 0 | 1 | 1 | 4 |
| Tooele | 46,208 | 230 | 995 | 57 | 232 | 2 | 6 | 0 | 6 |
| Tri-County | 41,756 | 182 | 830 | 78 | 303 | 1 | 5 | 0 | 4 |
| Daggett | 916 | 2 | 9 | 0 | 2 | 0 | 0 | 0 | 0 |
| Duchesne | 14,856 | 71 | 317 | 31 | 117 | 0 | 0 | 0 | 2 |
| Uintah | 25,984 | 109 | 504 | 47 | 184 | 1 | 5 | 0 | 2 |
| Utah County | 398,056 | 2,556 | 10,585 | 466 | 1,695 | 16 | 45 | 13 | 49 |
| Wasatch | 16,847 | 87 | 393 | 28 | 114 | 0 | 1 | 0 | 2 |
| Weber-Morgan | 210,793 | 1,007 | 4,136 | 332 | 1,392 | 1 | 24 | 3 | 20 |
| Morgan | 7,416 | 23 | 96 | 7 | 34 | 0 | 0 | 0 | 0 |
| Weber | 203,377 | 984 | 4,040 | 325 | 1,358 | 1 | 24 | 3 | 20 |

Table 2. Births, c-sections, gestation under 37 weeks, mothers under 20 years of age, and low birthweight by county of residence: Utah, fourth quarter 2002

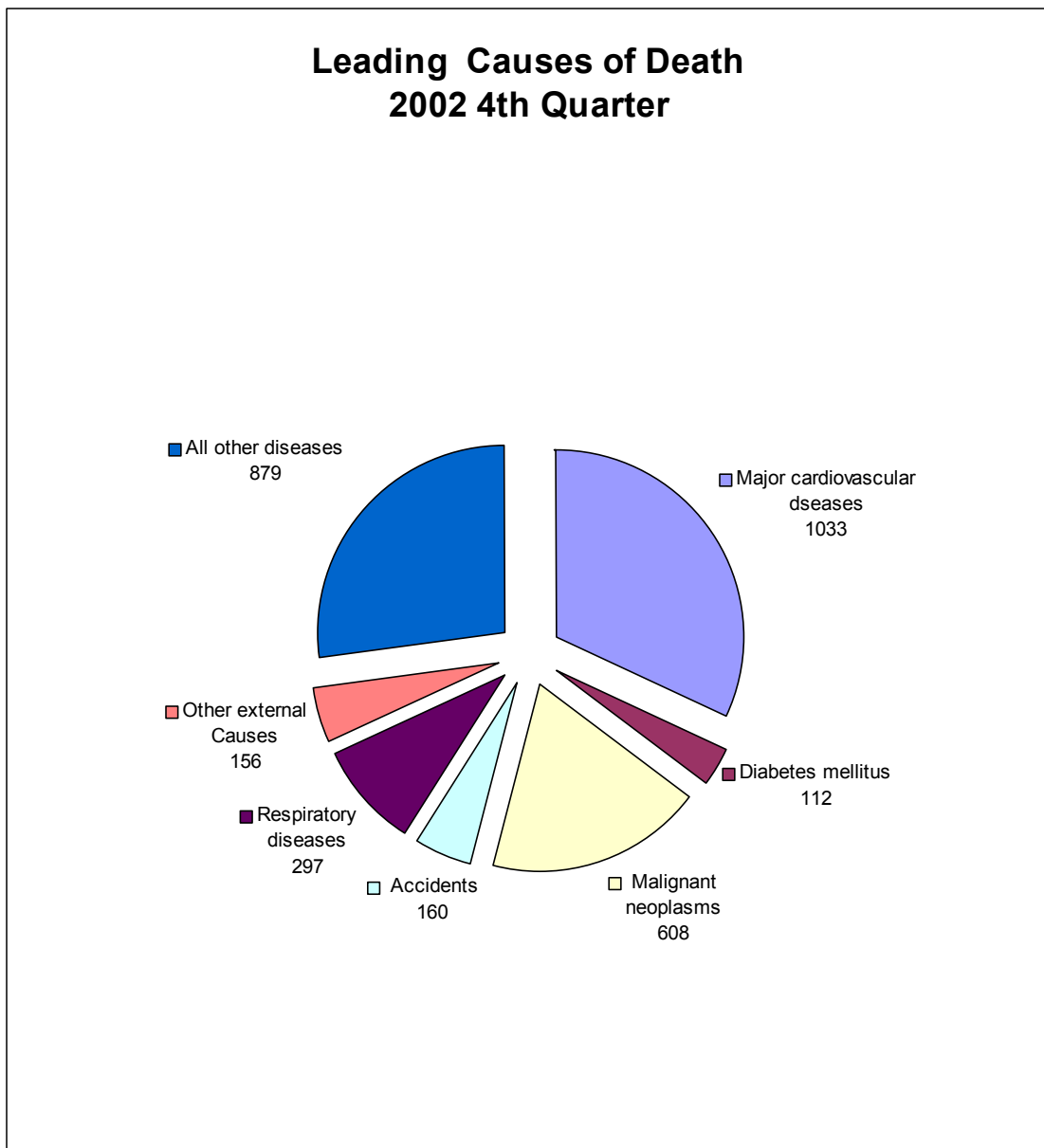
| Health district County | Births | | C-sections | | Gestation under 37 weeks | | Mothers under 20 years of age | | Low birth weight | |
|---------------------------|-------------------|---------------|-------------------|---------------|-----------------------------|---------------|----------------------------------|---------------|-------------------|---------------|
| | 4th Qtr Number | YTD Number | 4th Qtr Number | YTD Number | 4th Qtr Number | YTD Number | 4th Qtr Number | YTD Number | 4th Qtr Number | YTD Number |
| Total | 11,720 | 48,940 | 2,342 | 9,382 | 1,135 | 4,649 | 859 | 3,502 | 792 | 3,169 |
| Bear River | 732 | 3,105 | 132 | 543 | 82 | 315 | 40 | 169 | 46 | 176 |
| Box Elder | 198 | 802 | 40 | 171 | 14 | 82 | 17 | 56 | 7 | 44 |
| Cache | 523 | 2,280 | 91 | 369 | 67 | 230 | 23 | 113 | 39 | 131 |
| Rich | 11 | 23 | 1 | 3 | 1 | 3 | 0 | 0 | 0 | 1 |
| Central Utah | 265 | 1,107 | 63 | 245 | 29 | 95 | 28 | 110 | 20 | 81 |
| Juab | 40 | 170 | 9 | 22 | 6 | 13 | 2 | 9 | 4 | 13 |
| Millard | 37 | 184 | 7 | 43 | 2 | 14 | 5 | 23 | 4 | 12 |
| Piute | 4 | 16 | 3 | 10 | 1 | 3 | 1 | 1 | 0 | 4 |
| Sanpete | 95 | 368 | 26 | 97 | 12 | 38 | 8 | 31 | 8 | 30 |
| Sevier | 83 | 323 | 16 | 60 | 8 | 23 | 12 | 42 | 4 | 19 |
| Wayne | 6 | 46 | 2 | 13 | 0 | 4 | 0 | 4 | 0 | 3 |
| Davis | 1,167 | 5,100 | 245 | 1,041 | 119 | 513 | 77 | 300 | 65 | 314 |
| Salt Lake | 4,477 | 18,527 | 960 | 3,680 | 420 | 1,717 | 369 | 1,467 | 303 | 1,249 |
| Southeastern | 180 | 730 | 36 | 168 | 16 | 76 | 24 | 78 | 11 | 53 |
| Carbon | 82 | 315 | 24 | 95 | 5 | 42 | 14 | 36 | 6 | 34 |
| Emery | 37 | 158 | 5 | 24 | 4 | 15 | 1 | 14 | 1 | 7 |
| Grand | 17 | 94 | 2 | 18 | 0 | 2 | 2 | 8 | 0 | 1 |
| San Juan | 44 | 163 | 5 | 31 | 7 | 17 | 7 | 20 | 4 | 11 |
| Southwest | 710 | 2,965 | 129 | 510 | 78 | 286 | 62 | 240 | 59 | 179 |
| Beaver | 28 | 116 | 8 | 27 | 0 | 10 | 5 | 18 | 1 | 3 |
| Garfield | 13 | 67 | 1 | 11 | 0 | 2 | 2 | 10 | 0 | 2 |
| Iron | 173 | 736 | 27 | 109 | 27 | 77 | 19 | 60 | 15 | 51 |
| Kane | 19 | 84 | 4 | 15 | 3 | 10 | 3 | 8 | 3 | 4 |
| Washington | 477 | 1,962 | 89 | 348 | 48 | 187 | 33 | 144 | 40 | 119 |
| Summit | 127 | 467 | 24 | 110 | 9 | 36 | 7 | 27 | 9 | 32 |
| Tooele | 230 | 995 | 50 | 189 | 23 | 96 | 19 | 70 | 19 | 71 |
| Tri-County | 182 | 830 | 36 | 159 | 15 | 76 | 26 | 123 | 10 | 50 |
| Daggett | 2 | 9 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 3 |
| Duchesne | 71 | 317 | 19 | 67 | 8 | 31 | 7 | 47 | 3 | 20 |
| Uintah | 109 | 504 | 17 | 92 | 7 | 44 | 18 | 74 | 6 | 27 |
| Utah County | 2,556 | 10,585 | 417 | 1,736 | 238 | 938 | 109 | 469 | 178 | 645 |
| Wasatch | 87 | 393 | 23 | 88 | 10 | 47 | 1 | 20 | 3 | 28 |
| Weber-Morgan | 1,007 | 4,136 | 227 | 913 | 96 | 454 | 97 | 429 | 69 | 291 |
| Morgan | 23 | 96 | 2 | 13 | 2 | 10 | 2 | 5 | 1 | 4 |
| Weber | 984 | 4,040 | 225 | 900 | 94 | 444 | 95 | 424 | 68 | 287 |

Table 3. Deaths due to unnatural causes by county of residence: Utah, fourth quarter 2002

| Health district County | Deaths | | | | | | | | | | | | | |
|---------------------------|------------|--------|-----------------|--------|---------------|--------|-----------------|--------|----------|--------|---------|--------|--------------|--------|
| | All causes | | Total unnatural | | Motor vehicle | | Other accidents | | Homocide | | Suicide | | Undetermined | |
| | 4th Qtr | YTD | 4th Qtr | YTD | 4th Qtr | YTD | 4th Qtr | YTD | 4th Qtr | YTD | 4th Qtr | YTD | 4th Qtr | YTD |
| | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number |
| Total | 3,245 | 12,885 | 311 | 1,193 | 79 | 274 | 81 | 372 | 16 | 51 | 85 | 327 | 50 | 169 |
| Bear River | 193 | 732 | 10 | 59 | 2 | 8 | 2 | 22 | 0 | 0 | 5 | 24 | 1 | 5 |
| Box Elder | 80 | 299 | 3 | 19 | 0 | 1 | 2 | 11 | 0 | 0 | 1 | 7 | 0 | 0 |
| Cache | 110 | 417 | 7 | 39 | 2 | 7 | 0 | 11 | 0 | 0 | 4 | 16 | 1 | 5 |
| Rich | 3 | 16 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Central Utah | 125 | 507 | 10 | 42 | 4 | 18 | 2 | 13 | 0 | 0 | 2 | 8 | 2 | 3 |
| Juab | 16 | 50 | 1 | 5 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Millard | 32 | 117 | 4 | 10 | 2 | 4 | 2 | 5 | 0 | 0 | 0 | 1 | 0 | 0 |
| Piute | 8 | 20 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sanpete | 40 | 172 | 4 | 17 | 1 | 8 | 0 | 5 | 0 | 0 | 1 | 2 | 2 | 2 |
| Sevier | 25 | 136 | 1 | 9 | 0 | 2 | 0 | 3 | 0 | 0 | 1 | 4 | 0 | 0 |
| Wayne | 4 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Davis | 303 | 1,200 | 31 | 113 | 6 | 22 | 11 | 35 | 0 | 2 | 9 | 34 | 5 | 20 |
| Salt Lake | 1,275 | 5,175 | 117 | 465 | 15 | 84 | 35 | 151 | 10 | 29 | 32 | 124 | 25 | 77 |
| Southeastern | 89 | 374 | 12 | 42 | 2 | 9 | 4 | 11 | 0 | 1 | 3 | 10 | 3 | 11 |
| Carbon | 47 | 184 | 5 | 21 | 1 | 4 | 2 | 5 | 0 | 1 | 1 | 6 | 1 | 5 |
| Emery | 18 | 77 | 4 | 9 | 0 | 2 | 1 | 2 | 0 | 0 | 1 | 1 | 2 | 4 |
| Grand | 16 | 65 | 1 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 2 |
| San Juan | 8 | 48 | 2 | 8 | 1 | 3 | 1 | 3 | 0 | 0 | 0 | 2 | 0 | 0 |
| Southwest | 281 | 1,073 | 19 | 92 | 8 | 21 | 3 | 34 | 1 | 2 | 5 | 29 | 2 | 6 |
| Beaver | 16 | 57 | 0 | 3 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Garfield | 10 | 45 | 1 | 4 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 |
| Iron | 56 | 194 | 3 | 25 | 2 | 8 | 1 | 7 | 0 | 0 | 0 | 9 | 0 | 1 |
| Kane | 14 | 51 | 4 | 5 | 3 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Washington | 185 | 726 | 11 | 55 | 2 | 7 | 1 | 22 | 1 | 2 | 5 | 19 | 2 | 5 |
| Summit | 18 | 88 | 3 | 11 | 1 | 4 | 2 | 4 | 0 | 0 | 0 | 2 | 0 | 1 |
| Tooele | 57 | 232 | 5 | 30 | 1 | 8 | 2 | 9 | 0 | 1 | 2 | 7 | 0 | 5 |
| Tri-County | 78 | 303 | 19 | 48 | 8 | 19 | 6 | 15 | 2 | 3 | 3 | 7 | 0 | 4 |
| Daggett | 0 | 2 | 10 | 0 | 4 | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 0 |
| Duchesne | 31 | 117 | 9 | 20 | 4 | 9 | 4 | 5 | 1 | 2 | 0 | 4 | 0 | 0 |
| Uintah | 47 | 184 | 0 | 28 | 0 | 10 | 0 | 10 | 0 | 1 | 0 | 3 | 0 | 4 |
| Utah | 466 | 1,695 | 43 | 156 | 13 | 45 | 11 | 44 | 1 | 4 | 12 | 42 | 6 | 21 |
| Wasatch | 28 | 114 | 5 | 20 | 1 | 3 | 0 | 5 | 0 | 1 | 3 | 10 | 1 | 1 |
| Weber-Morgan | 332 | 1,392 | 37 | 115 | 18 | 33 | 3 | 29 | 2 | 8 | 9 | 30 | 5 | 15 |
| Morgan | 7 | 34 | 0 | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| Weber | 325 | 1,358 | 37 | 112 | 18 | 32 | 3 | 28 | 2 | 8 | 9 | 29 | 5 | 15 |

More than 3,245 Utah residents died between October 1, 2002 and December 31, 2002. The chart in Figure 1 proportionally compares the leading cause of death and provides the frequencies in each category. This chart shows major cardiovascular disease is responsible for nearly one third of the total deaths.

Figure 1



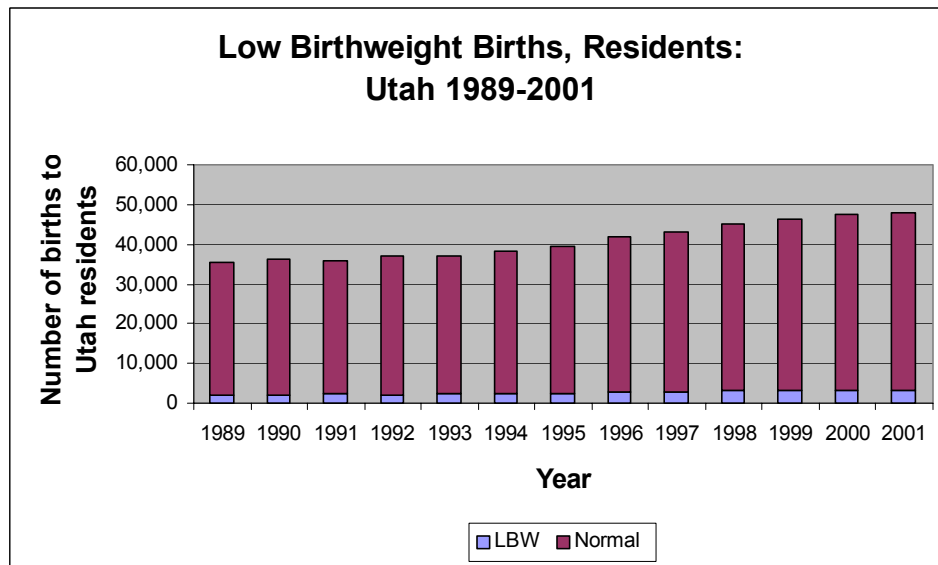
Utah Vital Statistics: A Historical Review

Utah Vital Statistics: A Historical Review presents an overview of selected public health trends in Utah using data derived from Utah birth and death certificates. These data may be available for approved research projects. For more information or to request data, please contact the Utah Office of Vital Records and Statistics.

Low Birthweight in Utah, 1989-2001

The number of births in Utah has steadily increased since 1989. During the same time, the proportion of low birthweight births (defined as less than 2500 grams or 5 lbs 7.5 oz) has risen slightly, from 5.9% in 1989 to a high of 7.1% in 1999. This is despite the fact that reducing low birthweight births was a national health objective for the year 2000 (1). In 2001, the most recent year for which data are available, 6.7% of all births were low birthweight. Figure 1 shows the total number of births for the years 1989-2001 and the proportion of those that were low birthweight (LBW).

Figure 1



Among the risk factors typically associated with low birthweight are maternal age, preterm birth, and plurality of birth. Following is a brief examination of each of these factors.

Maternal Age

Figure 2 shows that mothers between the ages of 25 and 34 have the lowest rates of low birthweight, while teens and women over 35 have the highest rates. As seen in Figure 3, between 20 to 25 percent of all low birthweight births are born to either teens or to women age 35 and over. However, this trend has been decreasing in recent years.

Figure 2

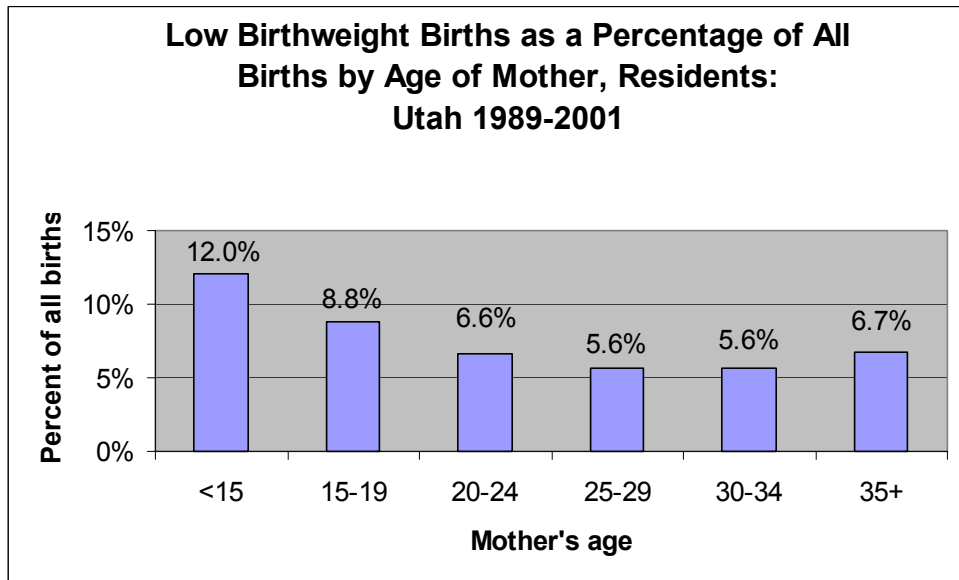
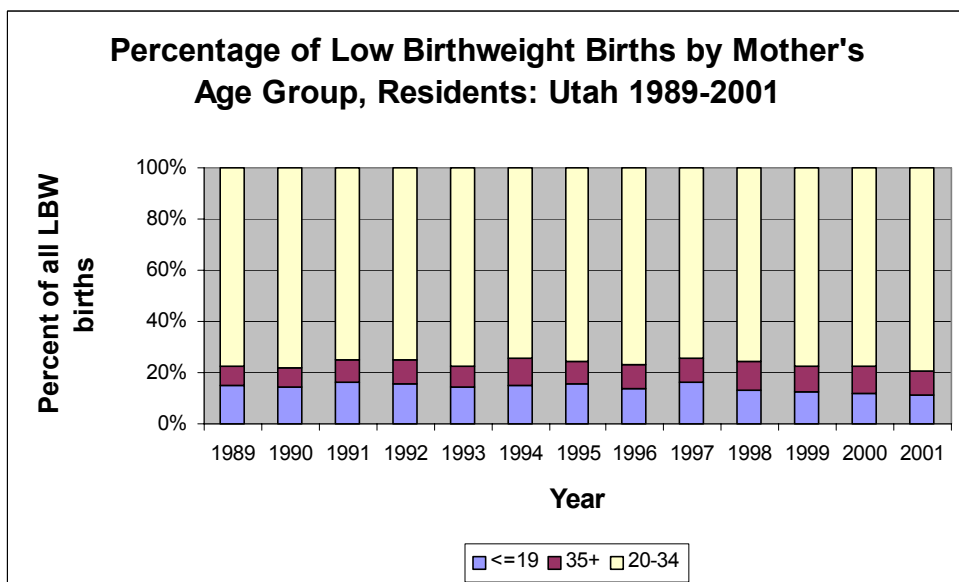


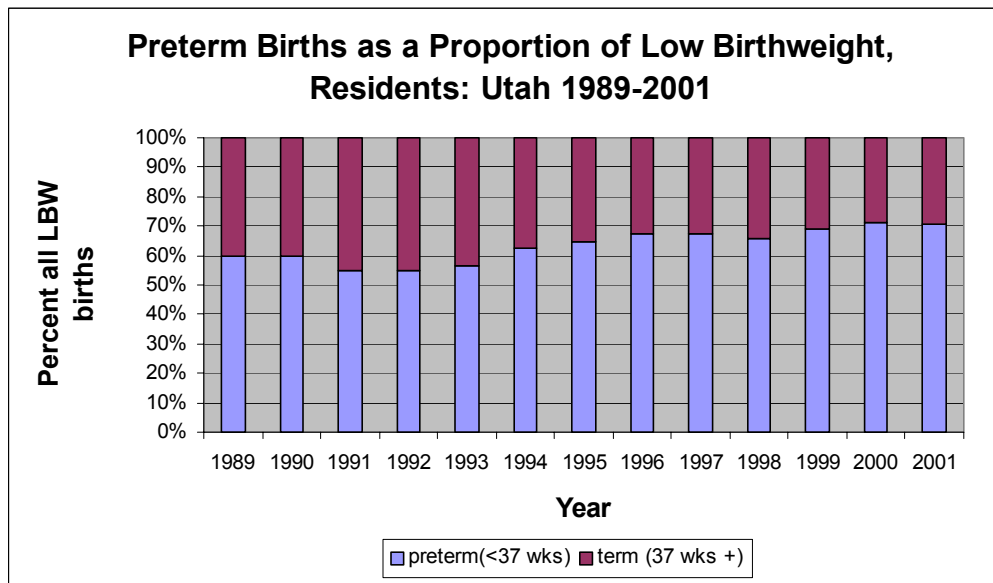
Figure 3



Preterm Births

Gestational age is strongly correlated with birthweight, with shorter gestation corresponding to lower birthweight. Preterm births are defined as less than 37 weeks completed gestation while term births have completed 37 or more weeks of gestation. Figure 4 shows preterm vs. term births as a proportion of low birthweight births. The proportion of preterm births has increased contributing to the increase in low birthweight births.

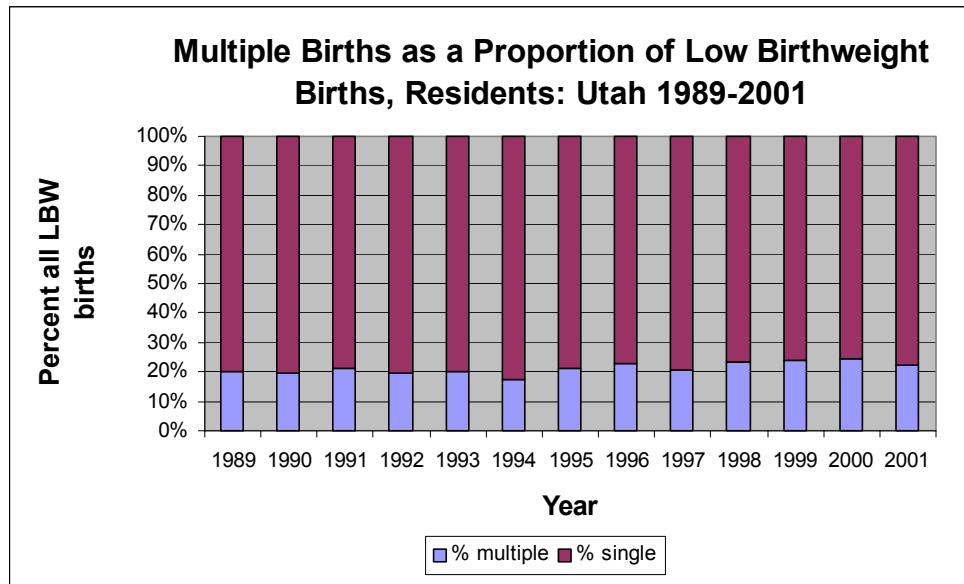
Figure 4



Plurality

New technologies in fertility allow more women to conceive and are increasing the chances of multiple gestation pregnancies. Multiple births (twins, triplets and higher), often have lower gestational ages and tend to have lower birthweights. As can be seen in Figure 5, multiple births as a proportion of low birthweight births has increased slightly, with a slight decline in 2001.

Figure 5



Conclusion:

Low birthweight births continue to be a concern for health officials due to an association with infant mortality and other negative outcomes. Factors such as maternal age, gestational age and plurality appear to contribute to LBW births. Tracking and understanding these factors may help to decrease the risk of low birthweight births.

References

1. Public Health Service, Healthy people 2000: national health promotion and disease prevention objectives—full report, with commentary. Washington, DC: US Department of Health and Human Services, Public Health Service, 1991; DHHS publication no.(PHS)91-50212.